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Application Serial Number: 09/70/, 623BSource: 9/20/200/

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- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216. PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax) PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER</u> <u>VERSION 3.0 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

http://www.uspto.gov/web/offices/pac/checker

ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 09/70/6238	
ATTN: NEW RULES CASE	s: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWA	RE
1Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused fire <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped	
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to Include the skipped sequences.	
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If Intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
0 (Use of n's and/or Xaa's have been detected in the Sequence Listing.	
9 Use of n's or Xaa's (NEW RULES)	Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
0Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific'name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	•
1Use of <220>.	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.	
→ (Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
2PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of Patentln version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
3Misuse of n	n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent	

AMC/MH - Biotechnology Systems Branch - 08/21/2001

PCT09

DATE: 09/20/2001

PATENT APPLICATION: US/09/701,623B TIME: 08:41:20 Input Set : A:\11514153.app Output Set: N:\CRF3\09202001\I701623B.raw 3 <110> APPLICANT: UNITED BIOMEDICAL INC., ET AL. 5 <120> TITLE OF INVENTION: PEPTIDE COMPOSITION AS IMMUNOGEN FOR THE TREATMENT OF ALLERGY 6 8 <130> FILE REFERENCE: 11514153US1 10 <140> CURRENT APPLICATION NUMBER: 09/701,623B 11 <141> CURRENT FILING DATE: 2000-12-01 13 <150> PRIOR APPLICATION NUMBER: PCT/US99/13959 14 <151> PRIOR FILING DATE: 1999-06-21 16 <150> PRIOR APPLICATION NUMBER: 09/100,287 Does Not Comply 17 <151> PRIOR FILING DATE: 1998-06-20 Corrected Diskette Needed 19 <160> NUMBER OF SEQ ID NOS: 91 21 <170> SOFTWARE: PatentIn Ver. 2.1 23 <210> SEQ ID NO: 1 24 <211> LENGTH: 325 25 <212> TYPE: PRT 26 <213> ORGANISM: HUMAN 28 <220> FEATURE: 29 <223> OTHER INFORMATION: CH2CH3 of human IgE 31 <300> PUBLICATION INFORMATION: 32 <301> AUTHORs: Dorrington, Bennich, 34 <303> JOURNAL: Immunology 35 <304> VOLUME: 41 36 <306> PAGES: 3-25 37 <307> DATE: 1978 39 <400> SEQUENCE: 1 40 Val Cys Ser Arg Asp Phe Thr Pro Pro Thr Val Lys Ile Leu Gln Ser 43 Ser Cys Asp Gly Gly Gly His Phe Pro Pro Thr Ile Gln Leu Leu Cys 20 25 46 Leu Val Ser Gly Tyr Thr Pro Gly Thr Ile Asn Ile Thr Trp Leu Glu 40 49 Asp Gly Gln Val Met Asp Val Asp Leu Ser Thr Ala Ser Thr Thr Gln 55 52 Glu Gly Glu Leu Ala Ser Thr Gln Ser Glu Leu Thr Leu Ser Gln Lys 70 75 55 His Trp Leu Ser Asp Arg Thr Tyr Thr Cys Gln Val Thr Tyr Gln Gly 85 90 58 His Thr Phe Glu Asp Ser Thr Lys Lys Cys Ala Asp Ser Asn Pro Arg 100 105 61 Gly Val Ser Ala Tyr Leu Ser Arg Pro Ser Pro Phe Asp Leu Phe Ile 120 64 Arg Lys Ser Pro Thr Ile Thr Cys Leu Val Val Asp Leu Ala Pro Ser 130 135 140 67 Lys Gly Thr Val Asn Leu Thr Trp Ser Arg Ala Ser Gly Lys Pro Val 150

70 Asn His Ser Thr Arg Lys Glu Glu Lys Gln Arg Asn Gly Thr Leu Thr

RAW SEQUENCE LISTING

Input Set : A:\11514153.app

Output Set: N:\CRF3\09202001\I701623B.raw

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76 Thr Tyr Gln Cys Arg Val Thr His Pro His Leu Pro Arg Ala Leu Met
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79 Arg Ser Thr Thr Lys Thr Ser Gly Pro Arg Ala Ala Pro Glu Val Tyr
                           215
                                                220
82 Ala Phe Ala Thr Pro Glu Trp Pro Gly Ser Arg Asp Lys Arg Thr Leu
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85 Ala Cys Leu Ile Gln Asn Phe Met Pro Glu Asp Ile Ser Val Gln Trp
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88 Leu His Asn Glu Val Gln Leu Pro Asp Ala Arg His Ser Thr Thr Gln
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91 Pro Arg Lys Thr Lys Gly Ser Gly Phe Phe Val Phe Ser Arg Leu Glu
94 Val Thr Arg Ala Glu Trp Gln Glu Lys Asp Glu Phe Ile Cys Arg Ala
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109 <220> FEATURE:
110 <223> OTHER INFORMATION: CH2CH3n of dog IgE
112 <300> PUBLICATION INFORMATION:
113 <301> AUTHORs: Patel,
114 <303> JOURNAL: Immunogenetics
115 <304> VOLUME: 41
116 <306> PAGES: 282-286
117 <307> DATE: 1995
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126 Leu Ile Ser Gly Tyr Val Pro Gly Asp Met Glu Val Ile Trp Leu Val
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129 Asp Gly Gln Lys Ala Thr Asn Ile Phe Pro Tyr Thr Ala Pro Gly Thr
132 Lys Glu Gly Asn Val Thr Ser Thr His Ser Glu Leu Asn Ile Thr Gln
135 Gly Glu Trp Val Ser Gln Lys Thr Tyr Thr Cys Gln Gly Phe Thr Phe
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147	Asn	Leu	Thr	Trp	Tyr	Arg	Glu	Ser	Lys	Glu	Pro	Val	Asn	Pro	Gly	Pro
	145					150					155				_	160
150	Leu	Asn	Lys	Lys	Asp	His	Phe	Asn	Gly	Thr	Ile	Thr	Val	Thr	Ser	Thr
151			-	-	165				-	170					175	
153	Leu	Pro	Val	Asn	Thr	Asn	Asp	Trp	Ile	Glu	Gly	Glu	Thr	Tyr	Tyr	Cys
154				180			-	_	185		•			190	•	-
156	Arq	Val	Thr	His	Pro	His	Leu	Pro	Lys	Asp	Ile	Val	Arq	Ser	Ile	Ala
157			195					200	-	•			205			
159	Lys	Ala	Pro	Gly	Lys	Arq	Ala	Pro	Pro	Asp	Val	Tyr	Leu	Phe	Leu	Pro
160	1	210		-	-	•	215			-		220				
162	Pro	Glu	Glu	Glu	Gln	Gly	Thr	Lys	Asp	Arg	Val	Thr	Leu	Thr	Cys	Leu
	225					230		-	-	,	235				-	240
		Gln	Asn	Phe	Phe	Pro	Ala	Asp	Ile	Ser	Val	Gln	Trp	Leu	Arg	Asn
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169				260					265				1	270		-1-
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	Ser	Arσ		Asp	Trp	Glu	Gln		Asn	Lvs	Phe	Thr		Gln	Val	Val
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184	84 <213> ORGANISM: RAT															
			EATUE													
187	<223	3> 01	HER	INFO	RMA	ION:	CH2	2CH3	of 1	rat 1	[qE					
							MATIC				-	•				
				Rs: I												
191			ennic			_										
192	<303			L: 1	mmur	oloc	IУ									
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194	<306	5> P <i>P</i>	GES:	3-2	25				•							
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197	7 <300> PUBLICATION INFORMATION:															
198	8 <301> AUTHORs: Patel,															
199	9 <303> JOURNAL: Immunogenetics															
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205	05 <301> AUTHORs: Steen,															
206	6 <303> JOURNAL: J. Mol. Biol.															
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Input Set : A:\11514153.app

Output Set: N:\CRF3\09202001\1701623B.raw

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211 <300> PUBLICATION INFORMATION:
212 <301> AUTHORS: Ishida,
213 <303> JOURNAL: EMBO J.
214 <304> VOLUME: 1
215 <306> PAGES: 1117-1123
216 <307> DATE: 1982
218 <400> SEQUENCE: 3
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225 Val Tyr Gly His Ile Gln Asn Asp Val Ser Ile His Trp Leu Met Asp
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                                40
228 Asp Arg Lys Ile Tyr Asp Thr His Ala Gln Asn Val Leu Ile Lys Glu
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231 Glu Gly Lys Leu Ala Ser Thr Tyr Ser Arg Leu Asn Ile Thr Gln Gln
                         70
234 Gln Trp Met Ser Glu Ser Thr Phe Thr Cys Lys Val Thr Ser Gln Gly
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237 Glu Asn Tyr Trp Ala His Thr Arg Arg Cys Ser Asp Asp Glu Pro Arg
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                                    105
240 Gly Val Ile Thr Tyr Leu Ile Pro Pro Ser Pro Leu Asp Leu Tyr Glu
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243 Asn Gly Thr Pro Lys Leu Thr Cys Leu Val Leu Asp Leu Glu Ser Glu
                           135
246 Glu Asn Ile Thr Val Thr Trp Val Arg Glu Arg Lys Lys Ser Ile Gly
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                                            155
249 Ser Ala Ser Gln Arg Ser Thr Lys His His Asn Ala Thr Thr Ser Ile
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                                        170
252 Thr Ser Ile Leu Pro Val Asp Ala Lys Asp Trp Ile Glu Gly Glu Gly
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                                    185
255 Tyr Gln Cys Arg Val Asp His Pro His Phe Pro Lys Pro Ile Val Arg
                               200
258 Ser Ile Thr Lys Ala Leu Gly Leu Arg Ser Ala Pro Glu Val Tyr Val
                           215
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261 Phe Leu Pro Pro Glu Glu Glu Lys Asn Lys Arg Thr Leu Thr Cys
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                                            235
264 Leu Ile Gln Asn Phe Phe Pro Glu Asp Ile Ser Val Gln Trp Leu Gln
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                   245
267 Asp Ser Lys Leu Ile Pro Lys Ser Gln His Ser Thr Thr Thr Pro Leu
268 .
               260
                                    265
270 Lys Thr Asn Gly Ser Asn Gln Arg Phe Phe Ile Phe Ser Arg Leu Glu
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273 Val Thr Lys Ala Leu Trp Thr Gln Thr Lys Gln Phe Thr Cys Arg Val
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276 Ile His Glu Ala Leu Arg Glu Pro Arg
277 305
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Input Set : A:\11514153.app

Output Set: N:\CRF3\09202001\I701623B.raw

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282 <212> TYPE: PRT
283 <213> ORGANISM: Artificial Sequence
285 <220> FEATURE:
286 <223> OTHER INFORMATION: CH2CH3 of mouse IgE
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292 His Arg Cys Asp Pro Asn Ala Phe His Ser Thr Ile Gln Leu Tyr Cys
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                                     25
295 Phe Ile Tyr Gly His Ile Leu Asn Asp Val Ser Val Ser Trp Leu Met
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298 Asp Asp Arg Glu Ile Thr Asp Thr Leu Ala Gln Thr Val Leu Ile Lys
301 Glu Glu Gly Lys Leu Ala Ser Thr Cys Ser Lys Leu Asn Ile Thr Glu
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304 Gln Gln Trp Met Ser Glu Ser Thr Phe Thr Cys Arg Val Thr Ser Gln
307 Gly Cys Asp Tyr Leu Ala His Thr Arg Arg Cys Pro Asp His Glu Pro
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310 Arg Gly Ala Ile Thr Tyr Leu Ile Pro Pro Ser Pro Leu Asp Leu Tyr
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316 Glu Lys Asn Val Asn Val Thr Trp Asn Gln Glu Lys Lys Thr Ser Val
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                        150
319 Ser Ala Ser Gln Trp Tyr Thr Lys His His Asn Asn Ala Thr Thr Ser
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                                    185
325 Gly Tyr Gln Cys Ile Val Asp Arg Pro Asp Phe Pro Lys Pro Ile Val
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328 Arg Ser Ile Thr Lys Thr Pro Gly Gln Arg Ser Ala Pro Glu Val Tyr
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                            215
                                                220
331 Val Phe Pro Pro Pro Glu Glu Glu Ser Glu Asp Lys Arg Thr Leu Thr
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                                            235
334 Cys Leu Ile Gln Asn Phe Phe Pro Glu Asp Ile Ser Val Gln Trp Leu
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                                        250
337 Gly Asp Gly Lys Leu Ile Ser Asn Ser Gln His Ser Thr Thr Thr Pro
                                    265
340 Leu Lys Ser Asn Gly Asn Gln Gly Phe Phe Ile Phe Ser Arg Leu Glu
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350 <210> SEQ ID NO: 5
351 <211> LENGTH: 25
352 <212> TYPE: PRT
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peptide

Use of n and/or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

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VERIFICATION SUMMARY PATENT APPLICATION: US/09/701,623B DATE: 09/20/2001 TIME: 08:41:21

Input Set : A:\11514153.app

Output Set: N:\CRF3\09202001\I701623B.raw

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L:629 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:16
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L:694 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
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L:1769 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60
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